

# Claims

- [c1] 1. A scan device, suitable for scanning a document, comprising:
- a scan chassis, wherein the scan chassis comprises at least one light source module, and the light source module comprises a lamp holder and a plurality of lamps, wherein the plurality of lamps are disposed inside the lamp holder, and each of the lamps can provide a light with a predetermined brightness to the document;
  - a random selecting device, electrically coupled to the scan chassis, and used to randomly select and turn on one of the plurality of lamps in the scan chassis;
  - a brightness judging device, electrically coupled to the scan chassis; and
  - a chart, disposed above the scan chassis.
- [c2] 2. The scan device of claim 1, wherein the scan chassis comprises:
- a chassis cover, wherein the light source module is disposed on the chassis cover;
  - a reflection mirror set, disposed inside the chassis cover, and located on a light path behind the document;
  - an optical lens set, disposed inside the chassis cover,

and located on the light path behind the reflection mirror set; and  
an image capturing device, disposed inside the chassis cover, and located on the light path behind the optical lens set.

[c3] 3. The scan device of claim 2, wherein the chassis cover has an opening, and the light arrives at the reflection mirror set via the opening after it is reflected from the document.

[c4] 4. The scan device of claim 2, wherein the image capturing device comprises a CCD.

[c5] 5. A scan device, suitable for scanning a document, comprising:  
a plurality of light source modules, wherein each of the plurality of light source modules comprises a lamp holder and a lamp, the plurality of lamps are disposed inside the plurality of lamp holders respectively, and each of the lamps can provide a light with a predetermined brightness to the document;  
a random selecting device, electrically coupled to the scan chassis, and used to randomly select and turn on one of the plurality of lamps in the scan chassis;  
a brightness judging device, electrically coupled to the scan chassis; and

a chart, disposed above the scan chassis.

- [c6] 6. The scan device of claim 5, wherein the scan chassis comprises:
- a chassis cover, wherein the light source module is disposed on the chassis cover;
  - a reflection mirror set, disposed inside the chassis cover, and located in a light path behind the document;
  - an optical lens set, disposed inside the chassis cover, and located in the light path behind the reflection mirror set; and
  - an image capturing device, disposed inside the chassis cover, and located in the light path behind the optical lens set.
- [c7] 7. The scan device of claim 6, wherein the chassis cover has an opening, and the light arrives at the reflection mirror set via the opening after it is reflected from the document.
- [c8] 8. The scan device of claim 6, wherein the image capturing device comprises a CCD.
- [c9] 9. A method for enhancing a life of a scan device, comprising:
- providing a scan chassis, wherein the scan chassis comprises a plurality of lamps, a reflection mirror set, an op-

tical lens set, and an image capturing device, and each of the lamps can provide a light with a predetermined brightness to a document; and  
randomly selecting and turning on one of the lamps.

[c10] 10. The method for enhancing the life of the scan device of claim 9, wherein the lamps comprise a first lamp and a second lamp.

[c11] 11. The method for enhancing the life of the scan device of claim 10, further comprising:  
turning on the first lamp;  
scanning a chart so as to obtain a first scanning result;  
and  
determining whether the brightness of the first scanning result is higher than a predetermined value or not, if it is, starting the scanning, and if the brightness of the scanning result is lower than the predetermined value, turning off the first lamp and turning on the second lamp.

[c12] 12. The method for enhancing the life of the scan device of claim 11, wherein after turning on the second lamp, further comprises:  
scanning the chart so as to obtain a second scanning result; and  
determining whether the brightness of the second scan-

ning result is higher than the predetermined value or not, if it is, starting the scanning, and if the brightness of the scanning result is lower than the predetermined value, turning on the first lamp and the second lamp simultaneously.

[c13] 13. The method for enhancing the life of the scan device of claim 12, wherein after turning on the first lamp and the second lamp simultaneously, further comprises: scanning the chart so as to obtaining a third scanning result; and determining whether the brightness of the third scanning result is higher than the predetermined value or not, if it is, starting the scanning, and if the brightness of the scanning result is lower than the predetermined value, notifying the user to replace the lamps.

[c14] 14. A method for enhancing a life of a scan device, comprising:

- (a) providing a scan chassis, wherein the scan chassis comprises a plurality of lamps, a reflection mirror set, an optical lens set, and an image capturing device, and each of the lamps can provide a light with a predetermined brightness to a document; and
- (b) randomly selecting and turning on one of the lamps
- (c) scanning a chart so as to obtain a scanning result; and

(d) determining whether the brightness of the scanning result is higher than a predetermined value or not, if it is, starting the scanning, and if the brightness of the scanning result is lower than the predetermined value, selecting and turning on another of the lamps.

[c15] 15. The method for enhancing the life of the scan device of claim 14, wherein after performing the step (d), further comprises executing at least one time of the steps (c) to the step (d).

[c16] 16. The method for enhancing the life of the scan device of claim 14, wherein when all the lamps are selected and the brightness of the scanning result obtained by using the lamps to scan are all lower than the predetermined value, all the lamps are turned on simultaneously.

[c17] 17. The method for enhancing the life of the scan device of claim 14, wherein when all the lamps are selected and the brightness of the scanning results obtained by using the lamps to scan are all lower than the predetermined value, some of the lamps are turned on simultaneously.